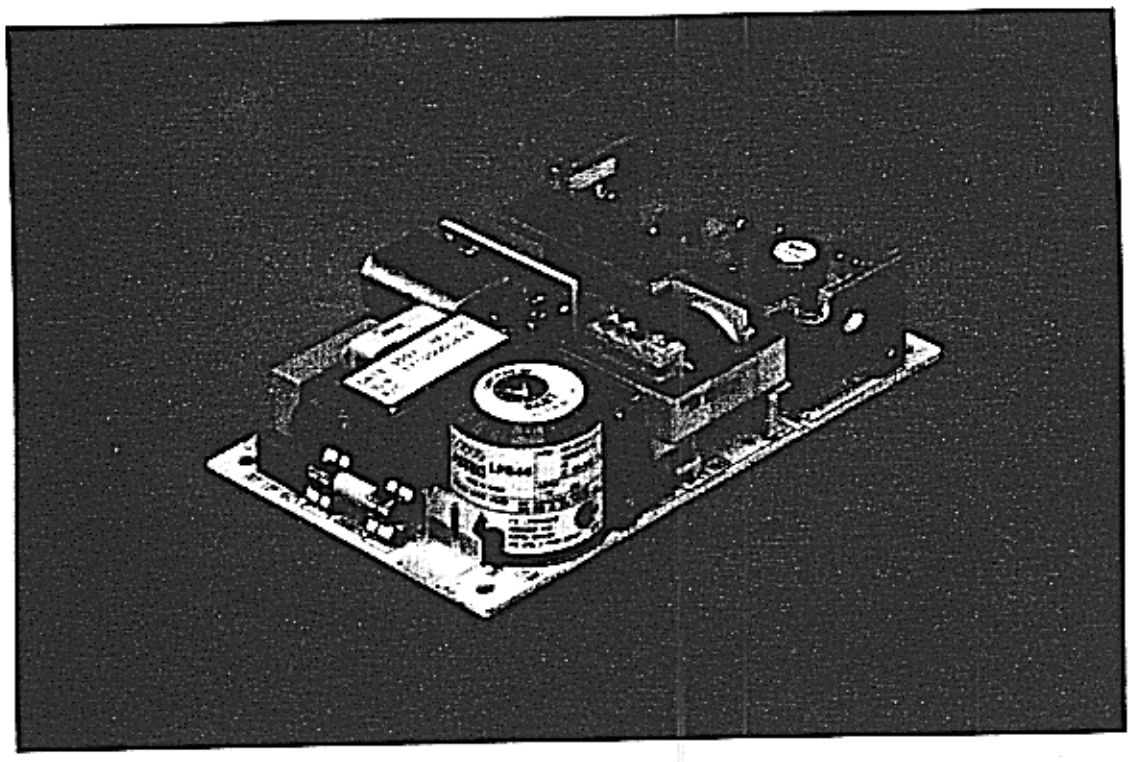
P/N 146894

LPS 40
40 WATTS



LPS Series
40 Watts • Single Output

The LPS Series of power supplies is an AC/DC universal input, single output design offering the latest in high technology performance. This rugged PCB design measures only 3" x 5" and features Class B EMI, high efficiency, and very high reliability. The LPS Series is ideal for telecommunications and computer peripheral applications, test and industrial equipment, medical instrumentation, and business machines.

SPECIAL FEATURES

- Universal input
- High efficiency
- Remote sense
- Built-in EMI filter
- Low output ripple
- Adjustable output
- Overvoltage protection
- Overload protection
- Enclosure kit available (see page 27 or PowerFAX Doc. no 1025)

ENVIRONMENTAL

Operating temperature:
0° to 50°C ambient; derate each output at 2.5% per degree from 50° to 70°C

Electromagnetic susceptibility: designed to meet IEC 801,-2, -3, -4, -5, -6, Level 3

Humidity: Operating; non-condensing 5% to 95%

Vibration: Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational

Storage temperature: -40° to 85°C

Temperature coefficient: ± .04% per degree C

MTBF demonstrated: > 550,000 hours at full load and 25°C ambient conditions

ELECTRICAL SPECIFICATIONS

Input

Input range	85 VAC to 264 VAC; 120 to 370 VDC
Frequency	47 - 440 Hz
Inrush current	< 18 A peak @ 115 VAC; < 36 A peak @ 230 VAC cold start @ 25°C
Input current	1 A max. (RMS) @ 115 VAC
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted, CISPR 22 Class B conducted, EN55022 class B conducted and VDE 0878 PT3 class B conducted
Safety ground leakage current	< 0.5mA @ 50/60Hz, 264 VAC input

Output

Maximum power	40 W for convection; 55 W with 30 CFM forced air
Adjustment range	-5, +10% minimum
Hold-up time	20 ms at 40 watt load and 115 VAC nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110% to 145% above peak rating
Overvoltage protection	5V output: 5.7 to 6.7 VDC. Other outputs 10% to 25% above nominal output

SAFETY

VDE	0805/EN60950 (IEC950)	11774-3336-1241 (LC# 84936)
UL	UL1950	E132002
CSA	CSA 22.2-234 Level 3	LR53982C
NEMKO	EN 60950/EMKO-TUE	P94100375
		(74-sec) 203
BABT	EN60950/BS7002	PS/604781
CB	Certificate and report	1119,1125,1126,1127
CE	Mark	

ORDERING INFORMATION

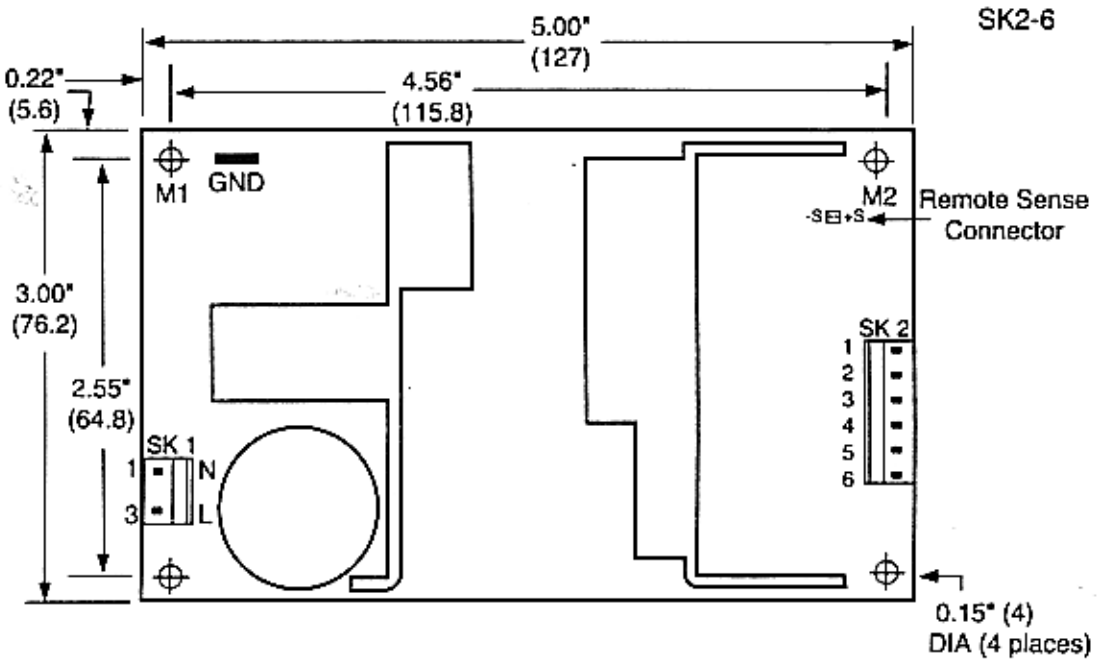
Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30 CFM Forced Air	Peak Load[1]	Regulation[2]	Ripple P/P (PARD)[3]
LPS41	3.3V	0A	8A	11A	12A	± 2%	33 mV
LPS42	5 V	0 A	8 A	11 A	12 A	± 2%	50 mV
LPS43	12 V	0 A	3.3 A	4.5 A	5 A	± 2%	120 mV
LPS44	15 V	0 A	2.6 A	3.6 A	4 A	± 2%	150 mV
LPS45	24 V	0 A	1.6 A	2.3 A	2.5 A	± 2%	240 mV
LPS48	48V	0A	0.9A	1.2A	1.3A	± 2%	480 mV

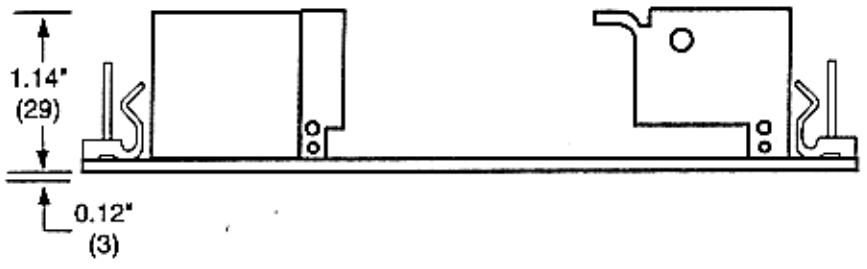
1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
2. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

PIN ASSIGNMENTS

Connector	LPS41	LPS42	LPS43	LPS44	LPS45	LPS48
SK1-1 SK1-3	Neutral Line	Neutral Line	Neutral Line	Neutral Line	Neutral Line	Natural Line
SK2-1	+3.3V	+5 V	+12 V	+15 V	+24 V	+48V
SK2-2	+3.3V	+5 V	+12 V	+15 V	+24 V	+48V
SK2-3	+3.3V	+5 V	+12 V	+15 V	+24 V	+48V
SK2-4	Common	Common	Common	Common	Common	Common
SK2-5	Common	Common	Common	Common	Common	Common
SK2-6	Common	Common	Common	Common	Common	Common

DRAWINGS





MATING CONNECTORS

AC Input: Molex 09-50-8031 (USA)
09-91-0300 (UK)
PINS: 08-58-0111

DC Outputs: Molex 09-50-8061 (USA)
09-91-0600 (UK)
PINS: 08-58-0111

Remote Sense: 22-01-2025

NOTES

1. Specifications subject to change without notice.
2. All dimensions are in inches and (mm), tolerance is ± .01".
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating unless otherwise stated.
6. Warranty: 1 year
7. Weight: 0.5 lb./0.23 kg